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James A. Harrison
P.O. Box 670007
Dallas, TX 75367

EXAMINER

D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,563

Applicant(s)

SHIRAISHI, TADASHI

Examiner

Corey P Chau

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 4,6 and 7 is/are allowed.
- 6) ☒ Claim(s) 1-3,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The Applicant has amended claims 1, 6, and 9. In addition, claims 5, 8, and 11 are cancelled. Claim 4 has been made an independent claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5386478 to Plunkett in view of U.S. Patent No. 6696972 to Bryans.
4. Regarding Claim 1, Plunkett discloses a remote control system with automatic and manual capabilities in a multi-channel sound reproduction system having a main stereo module driving plurality of loudspeaker units (i.e. receiver); a remote control unit in a hand-held housing that send commands to the main stereo unit via an IR (infrared) control link (i.e. transmitting means for transmitting data to said receiver); a microphone disposed in the hand-held housing to pick up a special test signal generated from the loudspeakers (i.e. at least one microphone for receiving sound outputted from said receiver); and command module responsive to the remote control unit for adjusting parameters (Figs 1 and 2; column 1, line 60 to column 2, line 6; Claims 1 and 9). The

command module supply a test signal to the loudspeakers for evaluating the predetermine parameter; deriving information relating to the predetermined parameter as sensed from each of the loudspeakers by the microphone (i.e. arithmetic operating means for calculating a state of said receiver from said sound received by said at least one microphone, and for analyzing an adjustment value for said receiver based on a calculation result); transmitting the information from the wireless remote control unit to the main stereo module via a wireless transmission path (i.e. transmits data for initiating adjustment for said receiver and transmit an analysis result obtained by said arithmetic operating means); electronically analyzing the derived information to determine a corrective adjustment requirement relating to the predetermined parameter; and communicating the corrective adjustment requirement to the command module to perform an appropriate corrective adjustment with regard to the predetermined parameter (column 4, lines 62-68; Claim 9). On lines 11-15, Applicant has amended the claim to recite the limitation: "receiving means, separate from said at least one microphone, for receiving data from said receiver said data received by said receiving means from said receiver being referred while the state of said receiver is calculated by said arithmetic operating means,". Plunkett discloses all the limitations of the remote control apparatus, but lacks "receiving means, separate from said at least one microphone, for receiving data from said receiver said data received by said receiving means from said receiver being referred while the state of said receiver is calculated by said arithmetic operating means,". Bryans discloses a remote control device comprising a light emitting diode to provide information to a user, such as battery status or when a

transmitter has transmitted a signal. If remote control device is equipped with a receiver and target electronic device (i.e. receiver) is equipped with a transmitter, light emitting diode may be used to indicate an acknowledgement by target electronic device (i.e. receiver) that the transmission had been received (column 2, lines 19-36). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the remote control apparatus of Plunkett with the teaching of Bryans to incorporate a LED and a receiver into the remote control and a transmitter in the receiver in order for the LED to provide an acknowledgement by the receiver that the transmission had been received. Therefore Plunkett as modified discloses a receiving means, separate from said at least one microphone, for receiving data from said receiver. Inherently, the data received by said receiving means from said receiver is being referred while the state of said receiver is calculated by said arithmetic operating means.

5. Regarding Claim 2, Plunkett as modified discloses corrective adjustment based on analysis of a signal picked up by a microphone such as loudness (volume) (i.e. sound pressure level), equalization (i.e. frequency characteristic) and time delay (column 2, lines 37-50).

6. Regarding Claim 9, Plunkett discloses a remote control system with automatic and manual capabilities in a multi-channel sound reproduction system having a main stereo module driving plurality of loudspeaker units (i.e. receiver); a remote control unit in a hand-held housing that send commands to the main stereo unit via an IR (infrared) control link (i.e. transmitting means for transmitting data to said receiver); a microphone

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disposed in the hand-held housing to pick up a special test signal generated from the loudspeakers (i.e. at least one microphone for receiving sound outputted from said receiver); and command module responsive to the remote control unit for adjusting parameters (Figs 1 and 2; column 1, line 60 to column 2, line 6; Claims 1 and 9). The command module supply a test signal to the loudspeakers for evaluating the predetermine parameter; deriving information relating to the predetermined parameter as sensed from each of the loudspeakers by the microphone (i.e. arithmetic operating means for calculating a state of said receiver from said sound received by said at least one microphone, and for analyzing an adjustment value for said receiver based on a calculation result); transmitting the information from the wireless remote control unit to the main stereo module via a wireless transmission path (i.e. transmits data for initiating adjustment for said receiver and transmit an analysis result obtained by said arithmetic operating means); electronically analyzing the derived information to determine a corrective adjustment requirement relating to the predetermined parameter; and communicating the corrective adjustment requirement to the command module to perform an appropriate corrective adjustment with regard to the predetermined parameter (column 4, lines 62-68; Claim 9). On lines 14-15, Applicant has amended the claim to recite the limitation: "receiving means, separate from said microphone, for receiving data from said receiver"; on lines 21-22, "transmitting means, separate from said sound outputs, for transmitting data to said remote control apparatus"; and on lines 32-34, "wherein said remote control apparatus and said receiver alternately execute transmission and reception of data while performing adjustment". Plunkett discloses all

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the limitations of the audio system, but lacks "receiving means, separate from said microphone, for receiving data from said receiver"; "transmitting means, separate from said sound outputs, for transmitting data to said remote control apparatus"; and "wherein said remote control apparatus and said receiver alternately execute transmission and reception of data while performing adjustment". Bryans discloses a remote control device comprising a light emitting diode to provide information to a user, such as battery status or when a transmitter has transmitted a signal. If remote control device is equipped with a receiver and target electronic device (i.e. receiver) is equipped with a transmitter, light emitting diode may be used to indicate an acknowledgement by target electronic device (i.e. receiver) that the transmission had been received (column 2, lines 19-36). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the remote control apparatus of Plunkett with the teaching of Bryans to incorporate a LED and a receiver (i.e. receiving means) into the remote control and a transmitter (i.e. transmitting means) in the receiver in order for the LED to provide an acknowledgement by the receiver that the transmission had been received. Therefore Plunkett as modified discloses a receiving means, separate from said at least one microphone, for receiving data from said receiver and a transmitting means, separate from said sound outputs, for transmitting data to said remote control apparatus. The limitation "wherein said remote control apparatus and said receiver alternately execute transmission and reception of data while performing adjustment" is inherent because the remote control apparatus can alternate execute of transmission and reception while performing adjustment. The

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limitation does not disclose what adjustment is performed while the remote control apparatus alternate execute of transmission and reception, therefore any adjustment can be done while the alternate execute of transmission and reception of the remote control.

7. Regarding Claim 10, Plunkett as modified discloses corrective adjustment based on analysis of a signal picked up by a microphone such as loudness (volume) (i.e. sound pressure level), equalization (i.e. frequency characteristic) and time delay (column 2, lines 37-50).

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5386478 to Plunkett in view of U.S. Patent No. 6696972 to Bryans as applied to claims 1, 2, 9 and 10 above, and further in view of U.S. Patent No. 6069567 to Zawilski.

9. Regarding Claim 3, Plunkett as modified discloses a remote control system comprising only one microphone. Zawilski discloses a remote control unit comprising two microphones wherein capturing audio information is enhanced with additional the microphones (column 2, lines 60-62). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote control system of Plunkett with the teaching of Zawilski to have two microphones to enhance the capturing of audio information.

Allowable Subject Matter

10. Claims 4, 6, and 7 are allowed.

11. Regarding Claim 6, Plunkett discloses all the limitation of Claim 6, except for "transmitting means, separate from said multi-channel sound outputting, for transmitting data to said remote control apparatus, said data being required for calculation in said remote control apparatus".

12. Claim 7 is allowable due to dependence from Claim 6.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P Chau whose telephone number is (703)305-0683. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 26, 2004


FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER